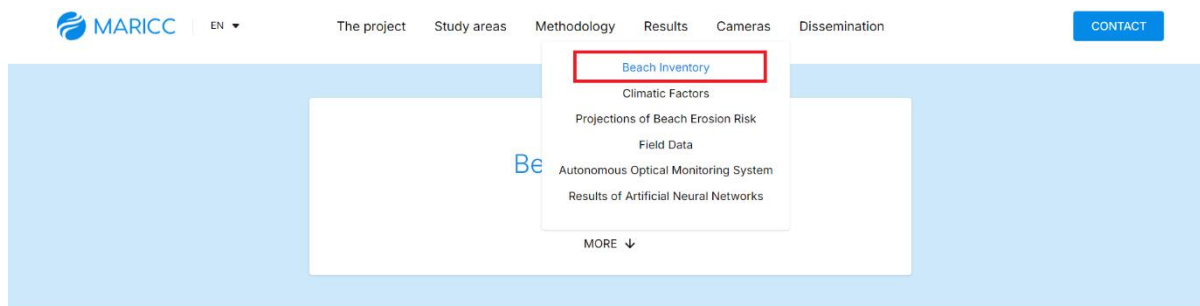


# Navigation guide for the beach database maps



An integrated beach inventory for the islands of Santorini and Kos was assembled, which contains qualitative and quantitative information for various parameters grouped into 5 thematic categories, as detailed below. Historical changes in certain parameters were also analyzed and are included as a separate category. Additionally, user-friendly interactive maps showcasing the spatial distribution of key parameters were created using *Google My Maps* and *Google Earth Web* tools. Links to access these maps are provided below and instructions for navigating the maps are provided here.

## KOS

### Geospatial characteristics

[Maximum width](#)

[Carrying capacity \(area\)](#)

### Environmental characteristics

[Sediment type](#)

[Blue flags and protected areas](#)

### Socio-economic characteristics

[Accessibility](#)

[Beach development](#)

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### Characteristics of human intervention

[Coastal protection](#)

[Other coastal works](#)

### Historical changes

[Area changes](#)

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## SANTORINI

### Geospatial characteristics

[Maximum width](#)

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**The project**  
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**Figure 1:** Catalogue of the variables of the geospatial database of the beaches of the two islands

From the central menu of the website, under the "Results" tab, when the user selects "Beach Inventory," they will be directed to the results of the recording and analysis of the database for all the beaches of Kos and Santorini (Figure 1). The results are displayed in two columns, one for each island, and the different variables are divided into five thematic categories. Each variable (e.g., Maximum Width, Sediment Type, etc.) is a hyperlink that leads to an interactive map (Figure 2).

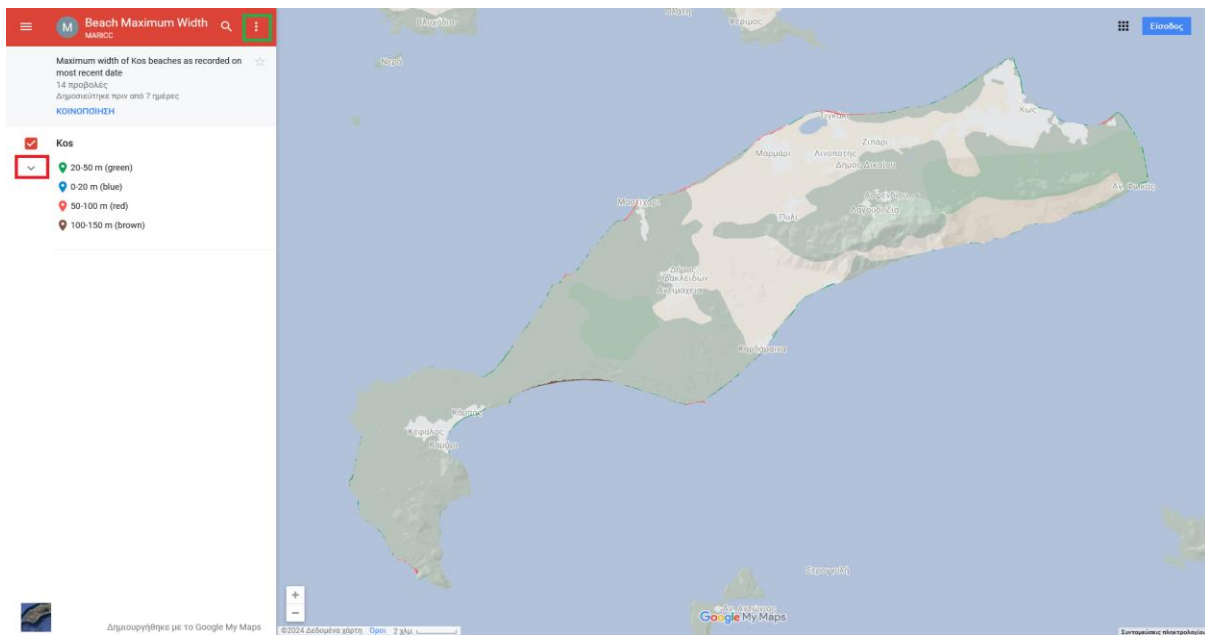


Figure 2: Display of the variable "Maximum Width" for Kos on a Google Maps background

Each map presents the spatial distribution of each variable, where the beaches are depicted in different colors, with each color corresponding to a different category of values for the respective variable. Generally, colors towards blue correspond to lower values and towards red for higher values. For example, in the map of Figure 2, where the spatial distribution of the maximum width is presented, beaches with widths from 0–20 meters are shown in blue, those between 20–50 meters in green, those between 50–100 meters in red, and one beach wider than 100 meters is shown in brown. The map allows zooming, and by clicking on a polygon, the values for all the variables of the beach are displayed.

On the left side of the map, a legend initially appears, explaining what each color represents. By clicking the arrow under the island's name (highlighted with a red box in Figure 2), the beaches that belong to each category (for quantitative variables, each category refers to a range of values) appear under each category. Then, the user can select a beach, opening a table with the values for all the variables, simultaneously focusing on the beach polygon on the map (Figure 3).



Figure 3: Example of focus on selected beach (Kos).

In addition to the legend, there are a series of options to assist the user. Next to the map title (e.g., "Beach Max Width"), there is a search icon, allowing the user to find a beach by its name (in English characters).

Also, under the three dots (in green in [Figure 2](#)) next to the search icon, the following options are available:

- Hide/Show the legend (Collapse map legend – MAP LEGEND)
- View map details, such as title and description (Map details)
- Reset the view to the initial zoom level (Zoom to viewport)
- Embed the map URL on another website (Embed map)
- View the map in the Google Earth Web environment (View map in Google Earth), which is recommended since the beach polygons are larger and clearer, even when viewing the entire island map without zooming in.

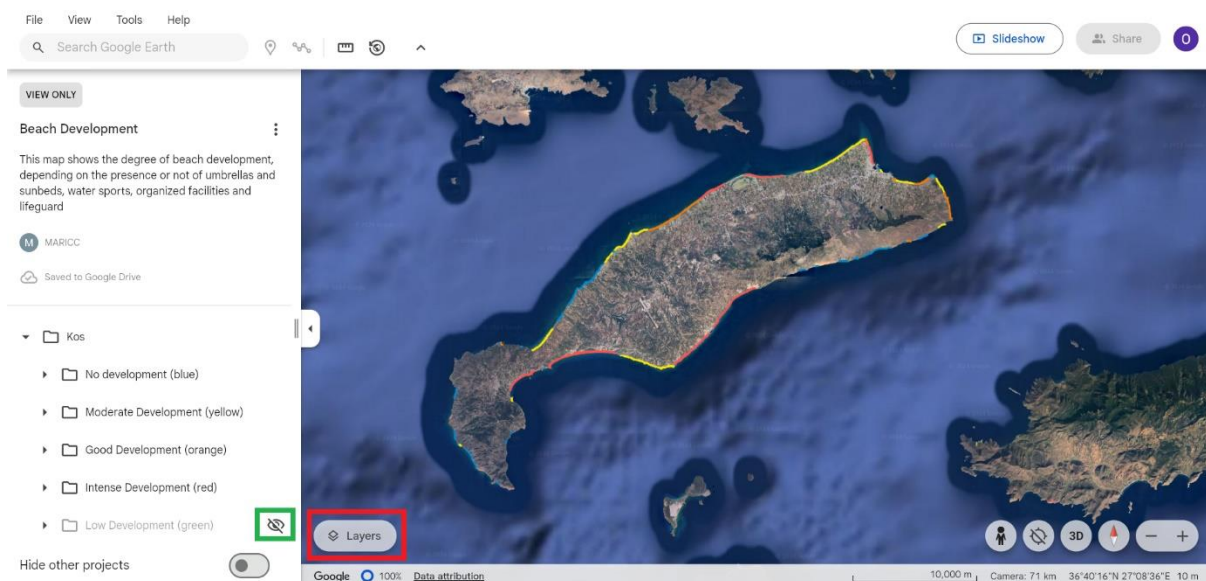
Finally, the user can change the background to a satellite image from the corresponding icon at the bottom left corner of the page.

Overall, the website allows users to navigate and explore the beach data.

In addition to better visualizing the results, navigating in the Google Earth environment offers some additional interactive features that facilitate data examination. Specifically, it allows selective activation/deactivation of layers or subcategories from the map using the corresponding icon, as shown in the green box in [Figure 4](#). In the given example, the "Low development" category has been deactivated while all others remain active.

Furthermore, under the Layers icon in the bottom left corner of the map (in the red box in [Figure 4](#)), more options from Google Earth are provided, such as showing photos at points of interest, turning labels (names) on or off, etc.

Given the dynamic nature of beaches, which are constantly changing and which was studied under the MARICC project, it is important to note the ability to view historical satellite data from previous dates with the "Historical imagery" option ([Figure 5](#)). Finally, there are further options, such as measuring distances on the map and importing KML/KMZ files.



*Figure 4: Example of viewing the map on a Google Earth satellite image background*

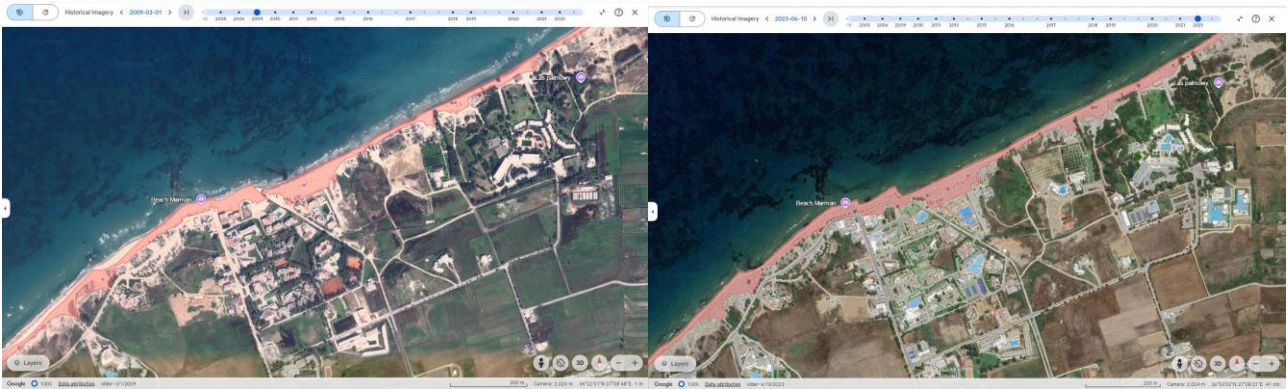


Figure 5: Example of an older satellite image (left) versus the most recent one (right).